Serial No.: 09/683,258 Attorney Docket: 3418

## **AMENDMENTS**

## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-17. (Canceled)
- 18. (Currently amended): A method for obtaining a profile of protein binding to the genomic DNA to genomic DNA of a biological sample comprising:
  - a. obtaining a plurality of candidate fragments from the genomic

    DNA bound by a plurality of proteins, wherein the plurality of proteins

    comprise at least 50 proteins; by

eliminating unbound genomic DNA; and

- b. detecting the candidate fragments.
- 19. (Original): The method of claim 18, wherein the candidate fragments are obtained by DNA foot printing.
- 20. (Currently amended): The method of Claim 19 wherein the step of determining detecting candidate fragments comprises hybridizing the candidate fragments with a collection of nucleic acid probes.
- 21. (Original): The method of Claim 20 wherein the nucleic acid probes are immobilized on a collection of beads or optical fibers.
- 22. (Original): The method of Claim 20 wherein the nucleic acid probes are immobilized on a substrate.
- 23. (Original): The method of Claim 22 wherein the collection of nucleic acid probes contains at least 10,000 probes.

Serial No.: 09/683,258 Attorney Docket: 3418

- 24. (Original): The method of Claim 23 wherein the collection of nucleic acid probes contains at least 50,000 probes.
- 25. (Original): The method of Claim 24 wherein the collection of nucleic acid probes contains at least 100,000 probes.
- 26. (Original): The method of Claim 25 wherein the collection of nucleic acid probes contains at least 1,000,000 probes.
- 27. (Original): The method of Claim 26 wherein the nucleic acid probes are oligonucleotide probes.
- 28. (Currently amended): The method of Claim 27 wherein the oligonucleotide probes are between 10-50 <u>nucleotides</u> in length
- 29. (Original): The method of Claim 28 wherein the oligonucleotide probes tile genomic sequences of interest.
- 30. (Original): The method of Claim 29 wherein the genomic sequences of interest contain genic regions.
- 31. (Currently amended): The method of claim 29, where the forward and lower strand sequences are tiled.
- 32. (Original): The method of Claim 31 wherein at least one of the binding proteins is unknown.
- 33 51. (Canceled)